

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE SPECIFICATION**

**IRRIGATION FIELD DITCH**

**CODE 388**

**1. SITE PREPARATION**

The foundation area for all ditch embankments shall be cleared of all trees, brush, weeds, sod, loose rock, or other materials not suitable for the subgrade.

**2. EARTHWORK**

a. Earthfill. Earthfill embankments shall be constructed to the neat lines and grades shown on the plans and established at the field locations.

- (1) All fill material shall be free of brush, roots, sod, large rocks or other material not suitable for making compacted fills.
- (2) The fill material shall contain sufficient moisture that when a small portion is taken in the hand and squeezed, it remains intact when released.
- (3) Fill material shall be placed in horizontal lifts not exceeding eight inches before compaction. Each lift shall be compacted before placing material for the next lift.
- (4) Compaction shall be acceptable when one of the following conditions is met:
  - (a) Two complete passes are made over the entire surface area of each lift with a pneumatic or tamper-type (sheepfoot) roller.
  - (b) Three complete passes are made over the entire surface area of each lift with heavily loaded rubber-tired scrapers.
  - (c) Track type (crawler) equipment may be used provided it is routed so the entire surface area of each lift is traversed by not less than

four passes of the tracks.

- b. Excavation. Excavation shall be to the neat lines and grades shown on the plans and established at the field location. Excavated materials shall be used in designated fill locations for compacted earth embankment or wasted to prescribed waste locations. Excavation in borrow areas shall be at locations prescribed and to lines and grades established in the field.

**3. TOLERANCES**

All construction shall be completed to design lines, grades and elevations within the following tolerances:

- a. Channel bottom grade shall not vary more than 0.2 foot above design grade and not more than 0.5 foot below grade.
- b. Elevations of the embankments shall vary not more than 0.2 foot below design grade and not more than 0.5 foot above design grade.
- c. The constructed cross sectional dimensions shall meet or exceed the design cross section.

**4. MEASUREMENT**

Completed volumes shall be the computed volumes within the neat lines of design unless a modification has been authorized in a written change order signed and dated by the technician approving the plans.